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Buchbesprechungen

STANFORD, C. B.: **The Hunting Apes. Meat eating and the origins of human behavior.** Princeton, New Jersey: Princeton University Press 1999. Hardcover, 253 pp., 9 photographs, 3 tables and 3 diagrams. DM 52,10, US$ 24,95. ISBN 0-691-01160-5

With his book of 7 chapters and bibliographic references CRAIG STANFORD reviews an extensive body of facts, hypotheses and socio-biological ideas about the meat-obtaining and meat-sharing behaviour of several primates, focusing on apes and human hunters and gatherers. Whoever looks for a survey or for detailed facts concerning this field will profit from the first chapters and the bibliographic references at the end. Some badly reproduced black and white photographs do not serve to illustrate the text.

Unfortunately the author then tries to give his own interpretation of what he sees as the key event opening the door towards the evolution of the special human attributes – meat sharing and the intragroup "politics" about it. He models the old "man-the-hunter" thesis to a "man-the-meat-sharer" thesis and combines it with the "food-for-Sex" idea to a "man-the-co-operative-hunter-for-sex" thesis. STANFORD does not really add new arguments to this old debate, and often he contradicts his own claim of what a good hypothesis is all about. Like some of the contemporary authors he cites, STANFORD searches for one key adaptation initiating the human career, and he expects to find it in the behaviour of modern chimpanzees. But if this "key starter" really can be found in the behaviour of chimpanzees – why then did they remain being vanishing apes instead of becoming bio-genetically successful humans? If there should have been one single key adaptation opening the door to becoming human, we can be sure we will never find it in today's ape behaviour. This simple reflection discharges the idea of hunting, meat-eating or meat-sharing as a central point of interest for understanding the human evolution – but CRAIG STANFORD does not even take notice of this contradiction. Consequently, in the last chapter the author forces his simple ideas into explaining the origin of human patriarchy – a ridiculous attempt.

Like many socio-biologically arguing primatologists that work on great apes, the author focuses completely on chimpanzee behaviour, before defining (or even neglecting?) the differences between apes and humans. The socio-biological ideas about evolution promise important advances in the understanding of our biological history – but we are highly complex animals, and socio-biology needs to be integrated into a much more complex and interwoven mode of thinking!

K.-P. VALERIUS, Giessen

SPINAGE, C. A.: **Elephants.** London: T. and A. D. Poyser Ltd. (1994). 319 pp., numerous black and white pictures and 25 colour illustrations. Hardcover, £ 27.–. ISBN 0-85661-088-7.

This book, which only came to the attention of the members of the editorial office just recently, although it was already published in 1994, deserves to be reviewed in this journal. It is not, in the strict sense of the word, a scientific publication; there are no references in the running text, but information can be traced in 14 pages of "Select Bibliography". The text is fluently written and often spiced with a pleasant portion of British humour. The reader is supplied with detailed and diverse information on the Indian and African elephants (*Elephas maximus* and *Loxodonta africana*).

Palaeontology, taxonomy and distribution of both species are dealt with; anatomy, physiology, reproduction, as well as information on growth and longevity, diseases and parasites are presented and discussed. Of course, the author also deals with social behaviour and with food and feeding of elephants. Their influence on vegetation, effects of overpopulation and population dynamics are thoroughly treated, as well as the structure and growth of the tusks and the problems related to hunting and ivory trade, not to forget management and protection of elephant populations. The last chapter of the book deals with husbandry of both species; contrary to general assumptions, *Loxodonta africana* is, at least, as tractable as the Indian elephant. The book concludes with two appendices, one with

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common and scientific names of plants mentioned in the text and the second with a list of parks in Asia and Africa where elephants can be found. In addition to the above-mentioned bibliography 14 pages of subject index make the information supplied in this book accessible.

"Elephants" by CLIVE SPINAGE is an unusual book: The reader cannot help being fascinated by the fluent presentation and the attractive style. It is equally pleasing and rewarding to browse through this book as well as to study it thoroughly and to improve one's knowledge about elephants.

P. LANGER, Giessen

REEVE, N.: **Hedgehogs.** London: T. and A. D. Poyser Ltd. 1994. Hardcover, 313 pp., numerous black and white pictures by RUTH LINDSAY and 20 colour plates. £ 21.– ISBN 0-85661-081-X.

"The book is the most authoritative work on the hedgehogs yet." This sentence can be found on the dustcover of the book by NIGEL REEVE – and the reviewer can agree fully with this statement! The present publication is a remarkable monograph on species of the family Erinaceidae. It is natural that the two best-investigated European species – *Erinaceus europaeus* of west and central Europe and *E. concolor* of eastern Europe are the most referred-to species in this book. In addition, all other species of the genus *Erinaceus*, as well as information on *Atelerix* (Africa), *Paraechinus*, the desert hedgehogs of northern Africa, Arabia and of the Iranian and Indian biogeographical regions, and *Hemiechinus*, the long-eared hedgehogs, which are mainly Asiatic in distribution, are also thoroughly considered. The wealth of data made available in this book for the reader is very impressive!

After the species have been introduced and after a brief account on the anatomical and physiological features given, the following aspects of hedgehog biology are described in separate chapters: Diet and feeding, home range and territoriality, nest construction and nest use, hibernation and energetics, some aspects of behaviour characteristic for different hedgehog species, reproductive biology, as well as demography and diseases. Finally, the relationship between hedgehogs and humans are considered. In a first appendix veterinary information on the treatment of parasites and diseases is given. Two further appendices present the names of hedgehogs in numerous languages. Although representatives of Erinaceidae have a wide distribution in Africa, the only language from that continent mentioned is Afrikaans! Useful British addresses for studies on hedgehogs and their protection are listed. 30 pages of detailed references and a species, as well as a general subject index conclude the book.

It is not the intention of the reviewer to comment on all data supplied in this remarkable book, but a few comments of the sixth chapter "Hibernation and energetics" should be presented as an example for the enormous amount of data the author compiled and discussed: Different physiological parameters for hibernating hedgehog species are presented, for example, the variability of the length of the hibernating season and the distribution of white and brown fat – the latter for thermogenesis –, modifications of heart rate and respiration. Neuro-anatomical and endocrine changes during hibernation, energy metabolism and metabolic changes in carbohydrate composition, as well as aspects of osmoregulation and haematological changes are discussed and interesting information on different aspects of arousal from hibernation are compiled. Not only adaptive specialisations of hedgehog energetics, but also information on their energy and food requirements are discussed. In a short, but stimulating section the author deals with evolutionary aspects of energetics. Although hedgehogs are in many ways conservative mammals, their well-regulated hibernation should be considered as a specialized charactenstic. Not only does the chapter on hibernation and energetics go into considerable detail, but also in other chapters N. REED has compiled a remarkable amount of data. They are presented by him in a well-composed, clear and sometimes even humourous, but always highly professional, manner. Any reader interested in mammalian biology will read this enjoyable publication with great intellectual profit and pleasure.

P. LANGER, Giessen

MITCHELL-JONES, A. J.; AMORI, G.; BOGDANOWICZ, W.; KRYŠTUFEK, B.; REIJNDERS, P. J. H.; SPITZENBERGER, F.; STUBBE, M.; THISSEN, J. B. M.; VOHRALIK, V.; ZIMA, J.: **The Atlas of European Mammals.** London: Academic Press 1999. 484 pp. DM 130,–. ISBN 0-85661-130-1

The idea to present a modern compilation on the current distribution of mammals in Europe dates back to the year 1988 and arose at a meeting of international scientists hosted by F. G. DE BEAUFORT and V. VIGNON at the National Museum of Natural History in Paris. At that time the Societas Euro-

paea Mammalogica was founded. Specialists were elected for each country and authorised to compilate information from their states. Thus, nearly all European nations are represented from north to south and from the west to the east. However, at the eastern border the reported area includes the Kaliningrad region but excludes Russia, Belarus, the Ukraine, and Moldavia. A standard map over all of the considered parts of Europe is used with a large scaled standard UTM (Universal Transverse Mercator) grid system. The Canary Islands, Madeira, Islas Selvageus, Azores, and Spitzbergen archipelago are recognized as three inserts. The distribution of the species is marked by two differently sized blue dots per grid. Larger ones indicate positive records since 1970; the smaller ones are based on data before 1970 with no evidence of later local extinction. The diverse species accounts are arranged in a standard format on the two opposite pages with the distribution map on the right side. The left page shows the scientific name (taxonomically following Wilson and Reeder with only a few exceptions) as heading and a habitus drawing as well as vernacular names in 33 European languages. Furtheron, short notices are added concerning distribution (worldwide or European, with comments on endemism, introduction, former distribution, extinction, or reintroduction), geographic variation (island forms, clines or existence of named subspecies), habitat (ecological requirements and limitating factors), population status, international legal and conservation status, other information, and main literature. These supplemental data are given by different authorities per species. All species of Europe are considered including introduced and feralized forms currently established and breeding in the wild as well as some vagrants but excluding pets or domesticated animals not established in the wild. Besides the one marsupial *Macropus rufogriseus* 193 eutherian species are recorded from the orders Insectivora (28 species), Chiroptera (34), Primates (1), Lagomorpha (8), Rodentia (68), Carnivora (34), and Artiodactyla (20). This atlas is a very impressive and lucid presentation of the recent situation, very welcome for an overview orientation on a large scale. The layout and appearance are of high quality. Only the unusally great number of authors (with names of only some of the national specialists) appears unappropriate and makes citations of this work rather tedious. A publication under the names of the two founders would have been a better choice.

D. Kruska, Kiel

Gurung, K. K.; Raj Singh: **Field Guide to the Mammals of the Indian Subcontinent. Where to watch Mammals in India, Nepal, Bhutan, Bangladesh, Sri Lanka and Pakistan.** San Diego and London: Academic Press 1996. Paperback, 140 pp., numerous black and white pictures, 12 colour and 12 black and white plates, numerous maps. £ 17.50. ISBN 0-12-309350-3.

This book has been written with the tourist to the Indian Subcontinent in mind. After an introduction to the geography of the area in general and some mammological aspects, a section with short descriptions of 106 mammalian species follows. The English and the scientific names are given and a view of the left side of the respective mammal is included. A few short remarks on identification, habitat, range, behaviour, diet, breeding characteristics, on the status and on mammals that could be confused with the respective species are presented. Following this section, colour plates present species in side views. Special characteristics of colour, shape or fur structure, as found in other guides, are not given here. Twelve additional plates show the outlines of mammalian tracks. Hereafter, a section follows that can be considered as the central asset for the tourist interested in the mammalogy of the Indian subcontinent: "Where to watch mammals" characterises 23 National Parks or Nature Reserves. A map informs about the general location of the park and identifies important geographical features. Then, a text – generally one page – presents the following information: The size and the year of establishment of the park or reserve, a general description, comments on the best season for a visit, on access to the park, accommodation and facilities, as well as a list of the mammals to be found in the area. The book concludes with a checklist of mammals, a bibliography and indices on common and scientific names, as well as on the parks considered. For the tourist interested in the mammals of the subcontinent the book by Gurung and Raj Sing can be a helpful source of general information.

P. Langer, Giessen